



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,291	12/27/2000	Gary Nachreiner	687-396	6326
40636	7590	04/04/2007		
AMS RESEARCH CORPORATION 10700 BREN ROAD WEST MINNETONKA, MN 55343			EXAMINER ELVE, MARIA ALEXANDRA	
			ART UNIT	PAPER NUMBER
			1725	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/749,291

Applicant(s)

NACHREINER ET AL.

Examiner

M. Alexandra Elve

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 16-19, 31-36 and 47-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 16-19, 31-36 and 47-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 16-19, 31-36 & 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett (WO 01/05331 A1) in view of Svercl et al. (UK 1,449,541).

Bartlett discloses braided stents having counter-rotating filaments, the ends of which are joined. The stent has first and second sets of mutually counter rotating filaments which are braided together and define a tubular stent body having two ends which are mechanically biased towards a first radially expanded configuration in which it is unconstrained by externally applied forces and can be retained in a second radially compressed configuration, and in which some or all of the filaments at the ends of the body are fixed together in pairs each consisting of counter rotating filaments by placing the filament ends over one another and placing them adjacent to and substantially parallel to one another and further comprising a join at each end fixing to retain the ends of the filaments in contact with one another.

The fixed ends may be shaped or heat-treated to urge the respective filaments to a position in which they are biased out of parallel alignment with the adjacent filament to which they are connected at the region of the join.

Although welding can be by resistance welding and/or by pressure, it is preferred for heat to be used, generally by spot, laser, or plasma welding. Preferably the welding softens the metal such that it forms a globule before resolidifying to form a bead.

It is preferred that each filament of the stent should execute at least one full turn of the helix. If the filaments execute less than a full turn, even with the joining of the ends of the filaments, the stent may be relatively unstable. Preferably each filament executes at least six turns, though generally less than twelve turns.

Filaments are braided together around a mandrel to produce a tubular structure. The filaments are wound to satisfy the braid angle requirements, and the number of filaments selected dependent upon the overall diameter of the stent that is required, as well as the particular application in which the stent is to be used.

Although Bartlett discloses the use of a mandrel, the exact structure and configuration of the mandrel is not taught.

Svercl et al. discloses a mandrel, which is used in the manufacture of tubular products. The mandrel is supported in a chuck and the tubular product to be welded is slipped over the cylindrical mandrel and clamped. The mandrel is arranged for axial movement with respect to the jaws. The mandrel has a first and second pin extending substantially radially outwards from the mandrel body. The pins are spaced apart longitudinally from the mandrel, whereby one of the pins, nearest the free end of the mandrel, is retractable into the mandrel body against biasing means.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a mandrel with axial movement and pins, as taught by Svercl et al. in

Art Unit: 1725

the Bartlett system because this ensures a secure fixation, and accurate weld bead and proper alignment.

Response to Arguments

Applicant's arguments filed 1/12/07 have been fully considered but they are not persuasive.

Applicant argues that Bartlett does not teach not teach the rotation in two directions. The examiner respectfully disagrees because Bartlett discloses braided stents having counter-rotating filaments, the ends of which are joined.

Applicant argues that Bartlett does not teach cutting. The examiner respectfully notes that cutting is defined in instant claims to involve welding of the filaments, which is essentially the same as Bartlett's joining of the ends.

Applicant argues that Svercl et al. does not teach braided stents. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1725

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

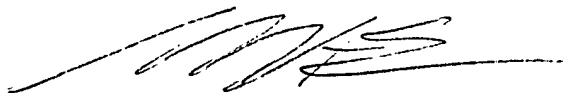
Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 1, 2007.

A handwritten signature in black ink, appearing to read 'M. Elve', with a long horizontal line extending to the right.

M. Alexandra Elve
Primary Examiner 1725